

PHENIX WEEKLY PLANNING

12/27/2007

Don Lynch

Run 8 Task Schedule

<u>Item</u>	<u>Start</u>	<u>Finish</u>
RPC Tent preparation (see slides)	On Going	On Going
Next scheduled Maint. Day	1/2	1/2
Install new UPS	~2/2	~2/9
Switch to p+p run	~2/2	~2/9
Mu Trigger FEE Prototype II install	~2/2	~2/2
Complete new beampipe design	2/29	2/29
Install HBD West for test run	7/15	7/15
End of Run 8	1/2 ?	5/27 ?
End of Run Party	1/3 ?	6/13?
Install Gas house UPS's	3/7 ?	3/7

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Next Maintenance Access Day

Scheduled for 1/2/08: No work requests yet

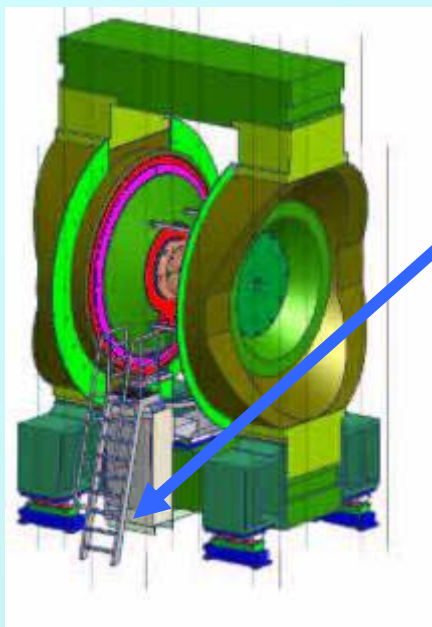
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January-May 2008:

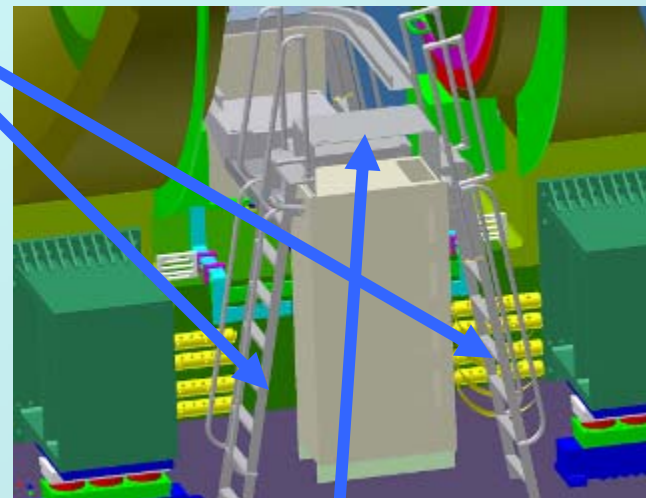
- Run 8 technical support
- RPC factory support
- new beam pipe design completion and review
- CM Crane design review and purchase placement
- Muon Trigger FEE prototype test
- MMN station 1 & 2 scaffolding design
- Muon Trigger Rack platform design and review
- RPC3 installation review (support structure, transport and installation fixture design, tunnel vapor barrier modification design, gas mixing and distribution system and piping design).
- VTX, FVTX & NCC technical support

CM Ladder/Stair Shutdown Access

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These ladders rec'd



Still waiting for Top of stair landing, in shop, expect ~ 2weeks

Field fit components during next few maintenance accesses; install on west during end of d-Au run access



- Safety System now operational
- Need SF6 Calibration Limits:
From MSDS-
Major hazard : Suffocation and High Pressure
Toxicity (Am. Conf. Of Gov. Ind. Hygienists ACGIH 2000 Edition) : 1000 ppm
- Set alarm level to some low fraction of toxicity, say 50 PPM ?
- Need Safety Walkthru

RPC Factory Issues, cont.

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Electrical - Done !! ?

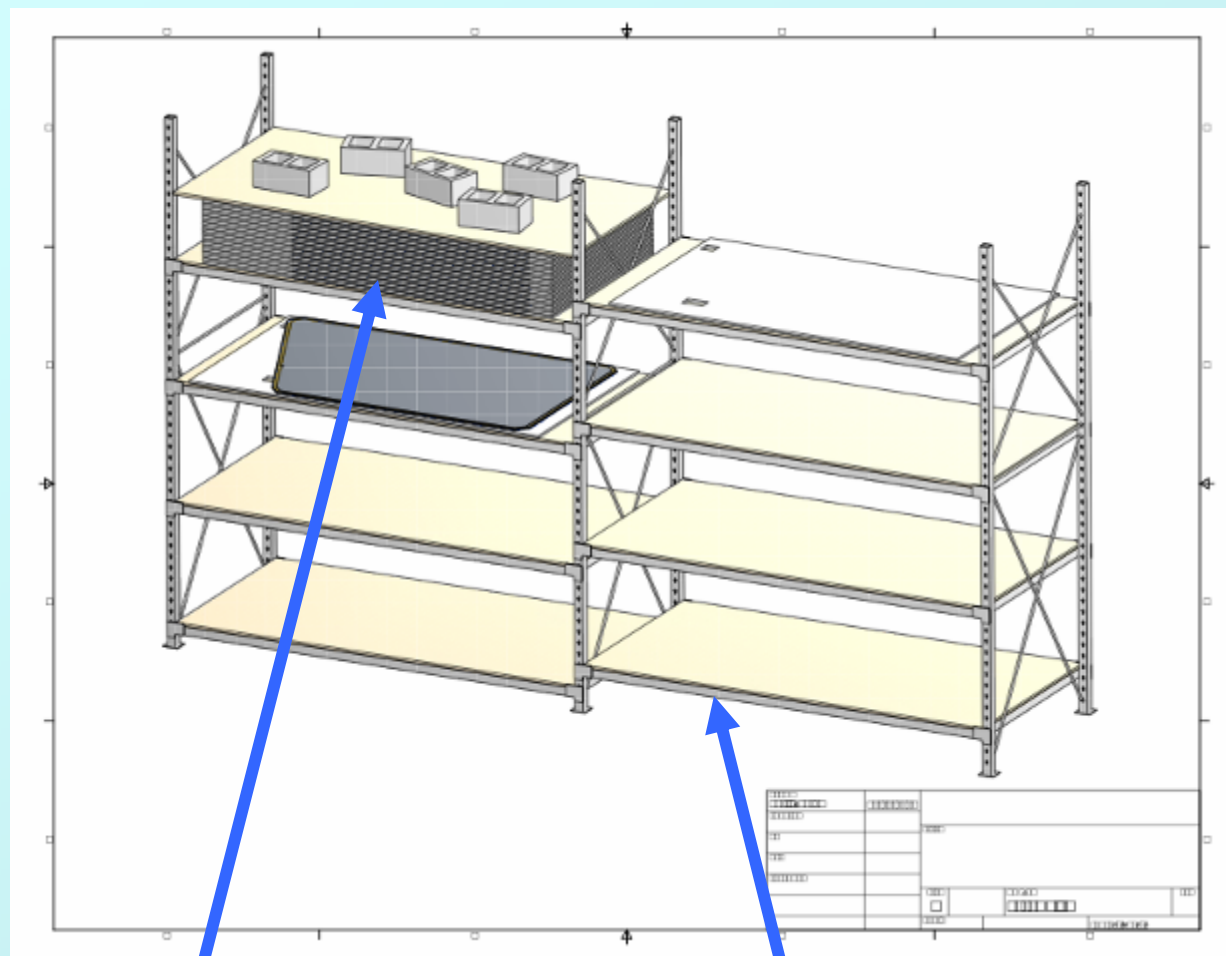
Safety systems - Installation complete, mini-blue sheet

Equipment - Need specs for T³ (Tilting Transport Table) and GMHOS (gap, module and $\frac{1}{2}$ octant storage) racks, then need to fabricate assemble and install.

Work plan - Add gas system description (Done) and checkout (mini-blue sheet procedure, in progress) to Gas system procedure as appendix A. Production operations require work plan update to include factory gas operation and final assembly/test procedures.

Security -RPC group to review C-A policy (3 tier requirement as required by C-A procedure 1.20) RPC group will prepare a one page description of how they intend to comply with this requirement. This will be reviewed by C-A.





20 RPC3C modules
spaced apart by the
1/2 in foam spacer

HEAVY-DUTY Z-BEAM STORAGE RACK

Rusty's factory schedule for
assembling 10 modules:

Gap QA (gas leak, HV,
popped spacer) ~1week

Assembling modules
(stacking, soldering,
connect gas, HV, ...) ~ 1
day/module or 2 weeks
for 10

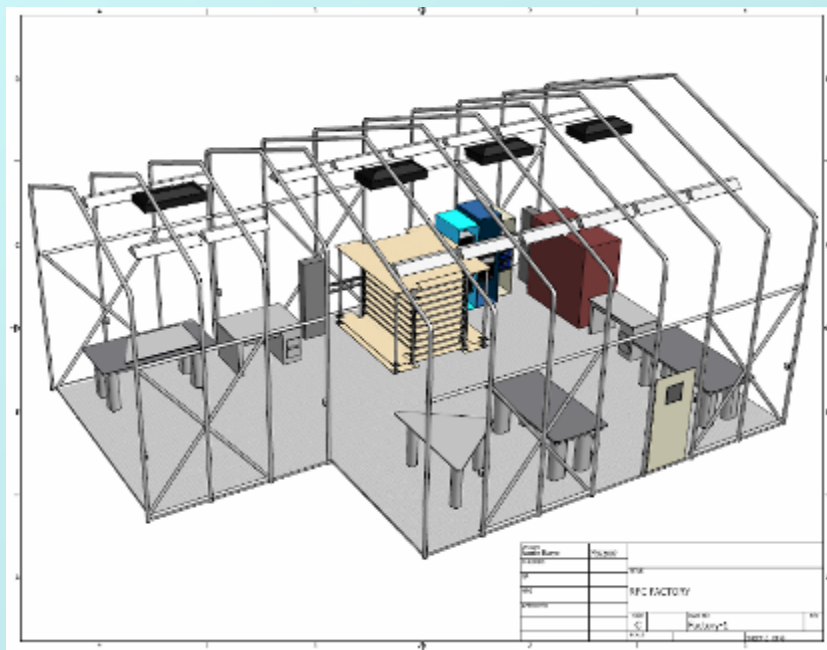
This schedule produces
10 modules in 3 weeks,
which is about as fast
as they can be tested in
the cosmic test stand.

To assemble the modules
for RPC3 N will take
about $6 * 3$ weeks = 18
weeks or 4.5 months.

RPC Factory Issues, cont.

Remaining Action Items from C-A safety review:

- Gas monitoring equipment to be calibrated and tested per BNL requirements
- Equipment is manufacturer calibrated. Will be tested with mini "blue sheet" check out.
- Max flow rates incl. chambers in storage for all gases to be forwarded to M. van Essendelft - still needs to be done before factory startup
- Approved security apparatus to protect against theft - see above



New Beampipe Design & Review

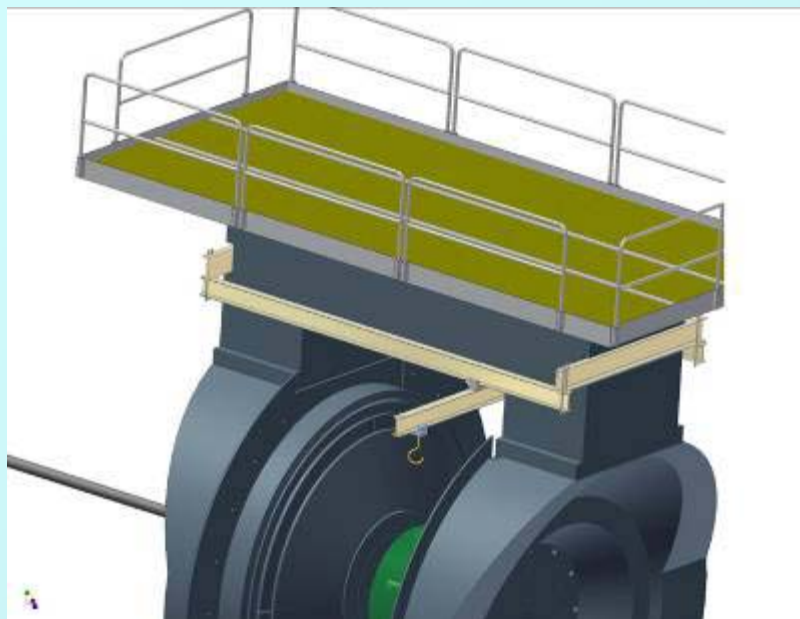
TECHNICAL SUPPORT 2007

Current beampipe IR region:
3 inch (76.2 mm) OD Be section,
.04" (1 mm) wall thickness
55" (1400 mm) long

Proposed beampipe IR region:
1.61 inch (41.0 mm) OD Be section,
.02" (0.5 mm) wall thickness
31.5" (800 mm) long

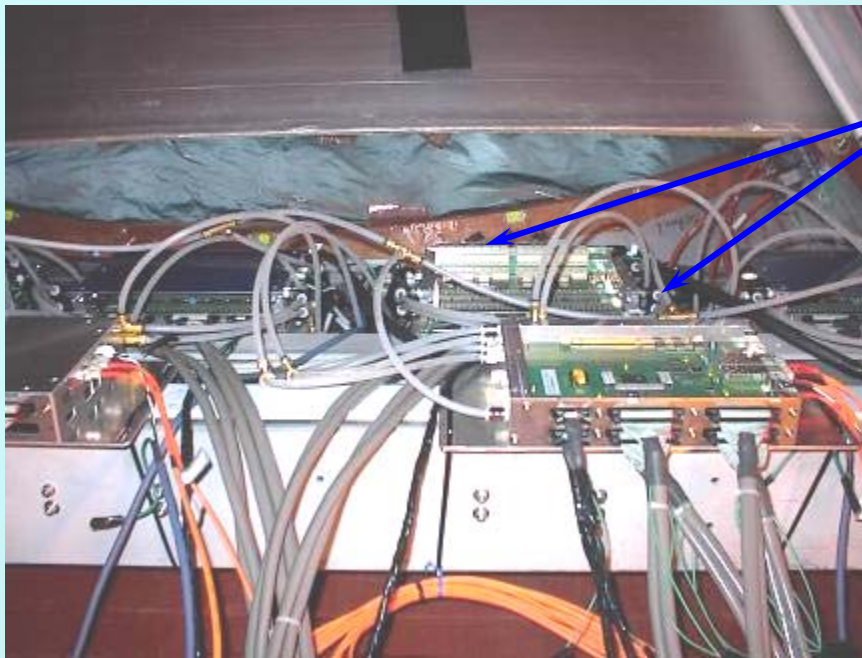
Design to be
ready for final
review by
2/29/08

CM Crane



- Crane Design nearly ready for review
- Uses Gorbel 1-ton capacity Ceiling mounted Bridge Crane, modified to be supported by 2 Steel Channels attached to CM
- Bridge and hoist to be removed for running.

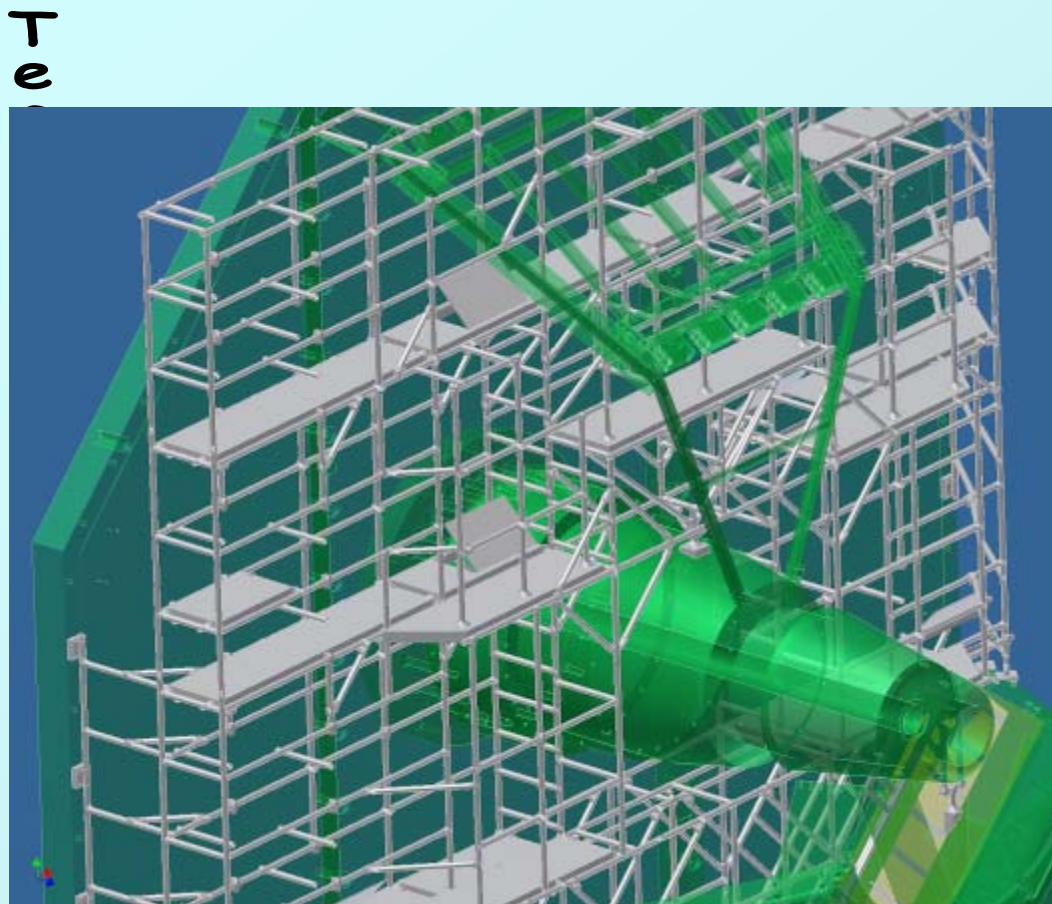
Muon Trigger FEE Prototype Test II



Test this past summer used separate AD and TX electronics.

- New plan combines the two into 1 more compact package.
- Experimental Safety Review is required
- Confined space work permit required.

MMN Scaffolding



Existing MMN MuTr scaffolding is being redesigned to be assemble-able with only one lampshade removed and access to all station 2&3 FEE's from lower hatch.

Additional scaffolding to be designed to access all Station 1 North FEE's and lampshade sites adjacent to station 1.

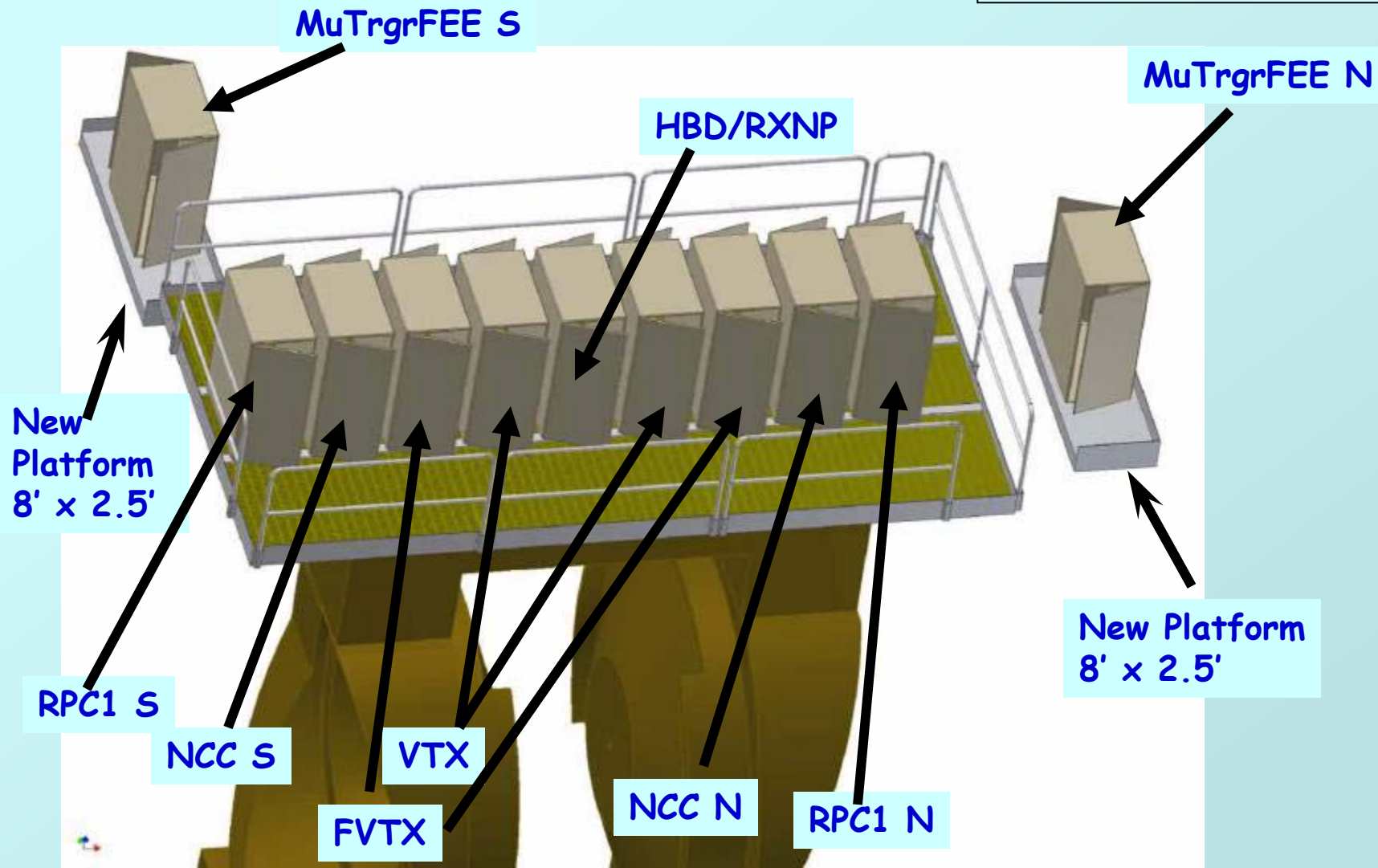
Station 1 North scaffolding to be useable for Station 1 South with minimal modification.

Station 2 & 3 South scaffolding to be addressed later

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Muon Trigger Rack Platforms

TECHNICAL SUPPORT 2007



RPC 3 Design Review

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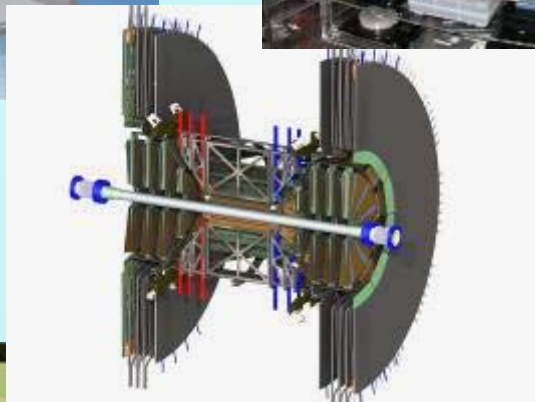
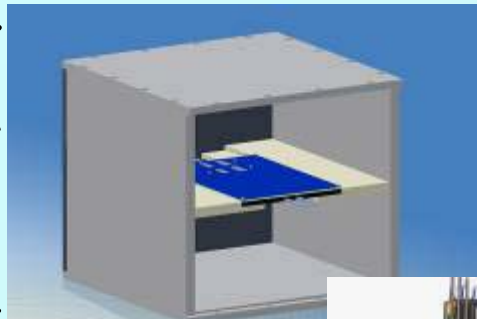
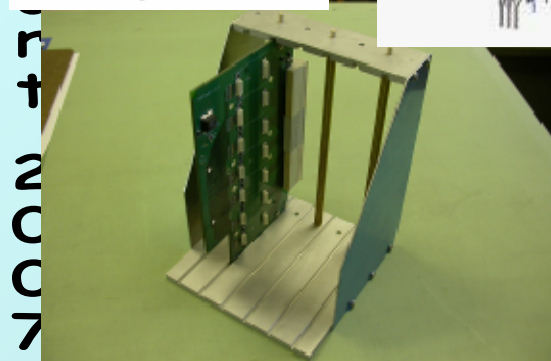
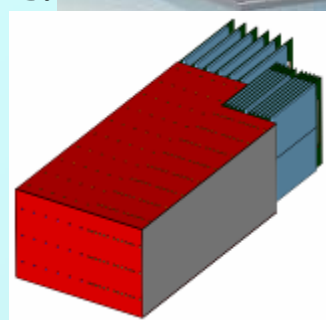
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- 2008 shutdown: install one RPC 3 South and one RPC 2 South prototype half octant: requires installation fixtures, prototype gas system, modifications to tunnel vapor barriers, prototype electronics, cable routing support, and, of course, structural support design
- All require both functional and safety reviews (may be combined) by ~June 2008. Assume installation in Aug.-Sept. 2008.

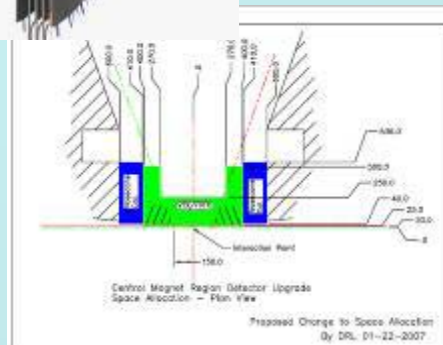


NCC, VTX & VFTX support

TECHNICAL



- VTX, FVTX and NCC prototype support
- Integration
- Physical and Rack space
- Infrastructure upgrades



2008 PHENIX Shutdown

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June 2008: Remove MuID collar, disengage EC and move to AH, prep IR for shutdown work, remove MMS lampshade, begin MuTr "decapacitor" removal, continue RPC factory construction, receive and install CM crane, complete design reviews, prepare work permits, move CM south, 1 Cu absorber install

July 2008: Re-Install HBD, RPC prototype gas system, Move shielding for RPC installation, RPC prototype cable routing and support, modify crystal palace and tunnel vapor barrier, fabricate RPC installation fixtures, install MMN Station 2 & 3 scaffolding, TBD

August 2008: Install RPC prototypes, install Mu Trigger FEE's in MMS and MMN, Install N&S rack support platforms for Mu Trigger FEE's. Install MMN cooling water and air supply for MMN. TBD prototype tests, TBD infrastructure work

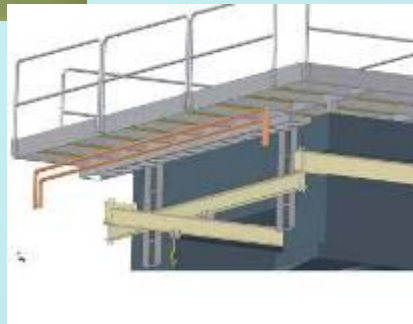
September 2008: Replace tunnel shielding, connect electronics, gas, water and air as necessary for RPC and Mu Trigger FEE,

October 2008: Prepare for run, EC into IR, install collars, build shield wall, etc.

November 2007: blue sheets, white sheets, close wall, start shifts, flam. Gas, physics

Other Work

- Clean Out Container: Material is evaluated. Clean out and dispose by end of Nov.
- Procedure review - pick up where we left off
- JTA review - Nearly Complete



1. Training: JTA evaluation nearly complete.
2. Occupational Medicine Clinic Closed 10 a.m. to 1 p.m. Friday, 12/28
The Lab's Occupational Medicine Clinic (OMC) will be closed Friday, December 28, from 10 a.m. to 1 p.m. to allow OMC staff to attend the funeral of OMC nurse Kathleen Herbert.
BNL Fire Rescue will provide medical coverage for medical matters during this time.

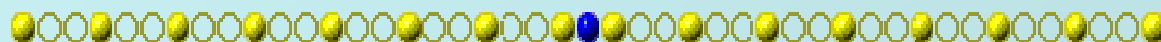
- 2008 Install stations 1& 2 of MuTr FEE upgrades (north), 1 octant Cu absorber (S), 2 half otants RPC2/3 S, infrastructure upgrades & repairs, misc. subsystem work, MMN scaffolding
- 2009 Scaffolding in MMS, MuTr FEE N stn. 1,2 & 3, MuTr N&S stn. 1,2 & 3 repairs, RPC2 N, RPC3 N, north Cu absorbers, infrastructure upgrades & repairs, misc. subsystem work
- 2010 Remove HBD & RXNP, remove beampipe, DC West upgrade, VTX barrel, south Cu absorber completed, MuTr FEE stn. 3 S, MuTr stn. 1, 2 & 3 S repairs, infrastructure upgrades & repairs, misc. subsystem work
- 2011 RPC1 N&S, NCC S, FVTX, infrastructure upgrades & repairs, misc. subsystem work, remove south absorber
- 2012 NCC N, upgrades contingency & wishlist, infrastructure upgrades & repairs, misc. subsystem work, remove north absorber

** Years refer to the shutdown year and follow the run with the similar number (i.e. work in 2008 is to be done in the shutdown that follows run 8, and so on)*

Where To Find PHENIX Technical Info



Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm